

bacterial transformation phenomenon was originally developed by British bacteriologist Griffith (F. Griffith) discovered in 1928, until 1944 American scientist Avery (O. T. Avery) and other personnel have confirmed that the conversion factor is deoxyribonucleic acid, which has made a significant contribution to the development of genetics. The transformation phenomenon in nature generally occurs in the same species or closely related species. Bacterial transformation methods have been introduced into other organisms. For example, the protoplast transformation method can be used to inject foreign DNA into organisms that do not have the ability to take up DNA, so that it can obtain some new characteristics.

Experimental materials
 Recipient bacteria: *E. coli* K12 HB101
 Plasmid: pGLO plasmid
 Conversion solution (CaCl₂)
 Ampicillin (amp)
 Arabinose (ara)
 Culture medium: solid LB, liquid LB
 Inoculation loop, pipette, etc.

Experimental steps and methods

1. Prepare the plate: Each group: 1 LB plate, 2 LB / amp plates, 1 LB / amp / ara plate
2. Prepare competent cells: use 250 µl of sterile water or transformation solution to suspend the *E. coli* bacteria powder provided in the kit, this is the competent cells.
3. Activate the receptor cells: Pick one loop of *E. coli* K12 HB101 bacterial solution and activate it on LB medium at 37 °C for 16-24h.
4. Conversion:
 - 1) Separately mark on two sterile centrifuge tubes Remember + DNA, -DNA.
 - 2) Add separately in the above two tubes 250 µl of transformation solution.
 - 3) Quickly place on ice.
 - 4) Pick one of the activated receptor bacteria A single colony, suspended in two tubes of transformation solution.
 - 5) Add one to the tube labeled + DNA Circular plasmid DNA, but not added to the tube labeled -DNA.
 - 6) Place the above two tubes on ice for 10 minutes.
 - 7) At the bottom of the prepared medium.
 - 8) Put two small tubes into a 42 °C water bath for 50 seconds, and then put them on ice for 2 minutes.
 - 9) Add 250 µl LB-broth to each of the two small tubes.
 - 10) Pipette 100 µl from the + DNA vial onto two plates marked with + DNA, and pipette 100 µl from the -DNA vial onto two plates marked with -DNA.
 - 11) Use a sterile inoculating ring to evenly spread the dropped liquid on the plate.
 - 12) Fix the above four plates and incubate in a 42 °C incubator for 2 days.
 - 13) Observe the result under the long wave ultraviolet lamp and record the number of colonies on each plate

Virus transformed cells experimental method

1. Blood preparation: Citric acid (Citric Acid) or heparin anticoagulation blood collection 1 ~ 2ml, divided into tubes, 0.5ml whole blood per tube, placed in a refrigerator at 4 °C for 30 minutes.
2. EBV virus transformation: Remove 0.5ml of frozen whole blood from liquid nitrogen and quickly thaw in 37 °C water.
3. The thawed cells were mixed with 10 ml of serum-free RPMI 1640, centrifuged at 2500 rpm for 2 minutes, the supernatant was discarded, and resuspended in RPMI 1640 growth medium containing 20% fetal bovine serum, penicillin, streptomycin and gentamicin cell.
4. Add 0.3 ~ 0.5ml of EBV virus solution, 37 °C water bath for 30 minutes to 2 hours, shaking from time to time to avoid clots.
5. Dispense into 50ml culture flasks, add appropriate amount of culture solution at the same time, put into 5% CO₂ incubator, and culture at 100% temperature.
6. One week later, 2 ml of medium was added.
7. The culture is often examined by microscopy, and the liquid is added or changed every 3 to 4 days. As the number of cells increases, it can be divided into large bottles for culture.

■ New coronavirus pneumonia According to pathological etiology and virology research, as well as a large number of hundreds of millions of clinical cases and analysis of a large number of death cases worldwide, the pathology of the new coronavirus pneumonia is quite complicated, and the general coronavirus strains Similarities and differences, even if a new vaccine is developed, and the virus is changing or a certain degree of heterogeneity and isotropic double mutation or multiple variability, this will also produce a certain range of resistance to the vaccine. This shows that the evolutionary changes of microorganisms are closely related to the physical changes and chemical changes of the entire natural universe, especially the evolution of biological species.

■ The new coronavirus pneumonia is associated with respiratory infectious diseases such as SARS, similarities and differences. The infection of the new coronavirus is mainly through contact, mouth, nose and mouth, saliva, respiratory nasal cavity, including objects, animals, etc. The most important is the respiratory tract and contact transmission, etc., a certain range of air breathing. Cytokine storm (cytokine storm) refers to the cytokine storm caused by the body after infecting microorganisms such as TNF-α, IL-1, IL-6, IL-12, IFN-α, IFN-β, IFN-γ, MCP Phenomena such as -1 and IL-8 are rapidly produced in large quantities and are important causes of acute respiratory distress syndrome and multiple organ failure.

■ Various viruses and bacteria among non-coronaviruses will also induce mutual conversion. The new coronavirus pneumonia is derived from coronaviruses, and the pathogens of such viruses come from animals. There is no objection. All kinds of viruses and bacteria can also produce isotropic or anisotropic infections.

■ Non-Coronaviruses and bacteria can also mutate under certain conditions. (1) Cocci: According to their arrangement, they can

caillots. 5. Distribuer dans des flacons de culture de 50 ml, ajouter la quantité appropriée de solution de culture en même temps, mettre dans un incubateur à 5% de CO₂ et cultiver à 100% de température. 6. Une semaine plus tard, 2 ml de milieu ont été ajoutés. 7. La culture est souvent examinée par microscopie, et le liquide est ajouté ou changé tous les 3 à 4 jours. A mesure que le nombre de cellules augmente, il peut être divisé en grandes bouteilles pour la culture. ■ Nouvelle pneumonie à coronavirus

Selon les recherches en étiologie pathologique et en virologie, ainsi que sur un grand nombre de centaines de millions de cas cliniques et l'analyse d'un grand nombre de cas de décès dans le monde, la pathologie d'une nouvelle pneumonie à coronavirus est assez compliquée. Similitudes et différences, même si un nouveau vaccin est développé et que le virus évolue ou un certain degré d'hétérogénéité et de double mutation isotrope ou de variabilité multiple, cela produira également une certaine gamme de résistance au vaccin. Cela montre que les changements évolutifs des micro-organismes sont étroitement liés aux changements physiques et chimiques de l'ensemble de l'univers naturel, en particulier l'évolution des espèces biologiques. ■ La nouvelle pneumonie à coronavirus est associée à des maladies infectieuses respiratoires telles que le SRAS, les similitudes et les différences. L'infection du nouveau coronavirus se fait principalement par contact, bouche, nez et bouche, salive, cavité nasale respiratoire, y compris les objets, les animaux, etc. Le plus important est les voies respiratoires et la transmission par contact, etc., une certaine gamme de respiration aérienne. Tempête de cytokines (tempête de cytokines) fait référence à la tempête de cytokines provoquée par le corps après avoir infecté des micro-organismes tels que TNF- α , IL-1, IL-6, IL-12, IFN- α , IFN- β , IFN- γ , MCP. Des phénomènes tels que -1 et IL-8 sont rapidement produits en grande quantité et sont des causes importantes de syndrome de détresse respiratoire aiguë et de défaillance d'organes multiples. ■ Divers virus et bactéries parmi les non-coronavirus induiront également une conversion mutuelle. La nouvelle pneumonie à coronavirus est dérivée de coronavirus, et les agents pathogènes de ces virus proviennent d'animaux. Toutes sortes de virus et de bactéries peuvent également provoquer des infections isotropes ou anisotropes. ■ Les non-coronavirus et les bactéries peuvent également muter dans certaines conditions. (1) Cocci: Selon leur disposition, ils peuvent être divisés en cocci simples, cocci doubles, cocci quadruples, sarcome, staphylocoques et streptocoques. (2) Bacillus: La morphologie cellulaire est plus compliquée, avec une forme de tige courte, une forme de tige, une forme de fuseau, une forme de lune, une forme de branche. (3) Bactérie spirale: peut être divisée en vibrio et spiruline. De plus, les gens ont également trouvé des bactéries en forme d'étoile et carrées. Les virus et les bactéries sont génétiquement dupliqués et transformés dans certaines conditions. Les virus peuvent également être des virus, des virus à ADN, des virus à ARN, des virus à protéines (par exemple des prions) dans certaines conditions. Classification par structure virale: vrai virus (Euvirus, appelé virus) et sous-virus (Subvirus, y compris viroïde, pseudovirus, prion) De la classification du type d'hôte: les bactériophages (virus bactériens), les virus végétaux (tels que le virus de la mosaïque du tabac), les virus animaux (tels que le virus de la grippe aviaire, le virus de la variole, le VIH, etc.) peuvent également se produire par réplication génétique mutation mutation transformation mutation recombinaison. Les virus non-couronne sont transformés en coronavirus. C'est aussi la difficulté et l'angle mort de la prévention des épidémies, au centre. La période d'incubation des bactéries virales est longue, asymptomatique ou légère, se transforme lentement en nouveau coronavirus, érode les voies respiratoires et les poumons, et n'est pas facile à détecter et à trouver, y compris la détection d'acide nucléique, etc., et sera également mal diagnostiquée et manquée. C'est également l'une des spécificités de la nouvelle pneumonie à coronavirus. ■ La zoologie, la médecine vétérinaire, la médecine, la virologie, la microbiologie, l'anthropologie et d'autres combinaisons interdisciplinaires sont très compliquées. Pour la prévention et le contrôle des épidémies, la prévention et le traitement de la nouvelle pneumonie à coronavirus nécessitent une recherche approfondie avant de pouvoir être comprise et clarifiée progressivement. La spécificité du nouveau coronavirus nécessite une attention particulière. ■ Les médicaments anciens et nouveaux, actuellement sans médicaments et vaccins spéciaux, médicaments antiviraux, médicaments immunitaires, médicaments contre la pneumonie sévère pour les maladies infectieuses respiratoires, etc., peuvent jouer un rôle considérable et leur efficacité ne doit pas être sous-estimée. Les données cliniques montrent qu'un grand nombre de patients peuvent être traités et récupérés, et le rôle des médicaments est indispensable. ■ Les complications d'une nouvelle pneumonie coronarienne nécessitent une observation et un traitement de suivi. Les patients après la rééducation doivent prendre des soins de santé protecteurs. Bien que

l'épidémie mondiale de la nouvelle pneumonie à coronavirus se soit améliorée, de nombreux pays ont commencé à débloquer, reprendre le travail et reprendre la production, etc. La situation générale de l'épidémie a été efficacement contrôlée. La situation va généralement dans le bon sens, mais cela ne signifie pas que la maladie a été maîtrisée et que l'épidémie a été complètement supprimée et contrôlée. Au contraire, la situation épidémique mondiale est encore très compliquée et grave. Il y a encore beaucoup de personnes infectées par la maladie. Certains pays ont connu un rebond partiel de la situation épidémique, et certains pays ont encore un taux en augmentation, y compris le nombre de décès. Le nombre total de patients est supérieur à 4 millions et les décès sont supérieurs à 300 000. (Une fois les données détaillées répertoriées) Selon les dernières données épidémiques, l'épidémie s'est répétée, y compris les rapports manqués, les faux positifs, etc. Transmission invisible de patients invisibles (y compris sous certaines conditions, la génération de nouveaux virus ou pneumonie et la conversion mutuelle des infections croisées, etc.) Dans certaines conditions environnementales, la germination et l'infection mutuelle se produiront également. (Divers virus et bactéries entre les non-coronavirus induiront également une conversion mutuelle.) Peu importe en Asie, en Amérique, en Europe, en Afrique et dans d'autres pays et régions, une prévention et un contrôle stricts sont requis. De nouveaux changements dans l'épidémie et la spécificité, la répétitivité, la dissimulation, l'infectiosité et la variabilité du nouveau coronavirus. Prendre des mesures et des méthodes plus efficaces pour empêcher l'épidémie de se reproduire et le virus de contre-attaquer. Sinon, les humains continueront de payer divers prix élevés . Le virus est nouveau et bizarre, et il constitue une grave menace pour la vie humaine. Vous ne devez pas être paralysé et baisser la garde. Ce virus est plus viable et infectieux que les autres coronavirus. À l'heure actuelle, il n'y a pas de médicaments et de vaccins spéciaux, et le taux de mortalité sera élevé. De plus, la nouvelle pneumonie à coronavirus est basée sur l'étiologie pathologique, la virologie et d'autres études, ainsi que sur un grand nombre de centaines de milliers de cas cliniques dans le monde, et sur l'analyse de près de 300 000 cas de décès. La pathologie de la nouvelle pneumonie à coronavirus est assez compliquée et le coronavirus général Les similitudes et les différences des souches, même si un nouveau vaccin est développé, et que le virus évolue ou une certaine anisotropie et double mutation isotrope ou variabilité multidirectionnelle, qui auront également une certaine gamme de résistance au vaccin. Cela montre que les changements évolutifs des micro-organismes sont étroitement liés aux changements physiques et chimiques de l'ensemble de l'univers naturel, en particulier l'évolution des espèces biologiques. La lutte contre les maladies humaines est une répétition de longue haleine, pas une bataille temporaire. Il est particulièrement important de se concentrer sur les zones et les pays épidémiques. Lorsque nous reprenons le travail, reprenons la production et retournons à l'école, nous devons être prudents et nous prémunir contre les nouvelles vagues de virus, sinon le coût sera plus élevé et plus dangereux. La nouvelle pneumonie à coronavirus a frappé à plusieurs reprises, et les pays du monde entier ne devraient pas être paralysés négligemment et être très vigilants en matière de prévention et de contrôle. Les rapports officiels des médias et les annonces pertinentes de la Commission nationale de la santé de la Chine indiquent qu'il y a actuellement trois infections en Chine qui n'ont pas encore révélé la source de l'infection, à savoir Shulan City, Jilin Province, Dongxihu District, Wuhan City et Zengcheng District, Guangzhou City. (Infections invisibles de patients invisibles, etc.). Récemment, la

10 million people get sick and more than 500,000 people die----The number of patients with new coronavirus pneumonia will exceed 100 million in the world, and the prevention and control alarm will sound again According to a report by Johns Hopkins University in the United States, there have been more than 10 million cases of new coronavirus infections worldwide, and more than 500,000 deaths.

The World Health Organization said that the daily new cases set a new record on Sunday, reaching 189,000. Brazil has the most new cases, with 47,000 new cases in the past 24 hours.

Many health experts say that the actual number of global infection cases may far exceed published figures, because some countries may underreport the relevant data.

Over 10.11 million, with a cumulative death of over 500,000. According to Reuters data, 1 person dies of a disease associated with the new coronavirus every 18 seconds.

A total of more than 2.5 million people have been diagnosed with the virus in the United States, the most in the world. Brazil is the country with the second highest number of new coronavirus cases in the world, with 1.13 million people diagnosed with infection and 57,000 deaths. Some researchers say that by October this year, the death toll of the new coronavirus in Latin America may exceed 380,000.

(The relevant chart materials in the book are quoted from related websites or network screenshots, Wiki, Who, Cell, Lancet, Encyclopedia, etc.)

Reuters calculated based on the average data from June 1 to 27, more than 4,700 people died of diseases related to the new coronavirus every 24 hours, that is, 196 people died every hour, or every 18 seconds. 1 person died.

The New Corona virus nuclear bomb explosion, if countries do not take more effective and decisive effective prevention and control measures, the virus will be unscrupulous, from 10 million to continue to climb to a new height, will reach a new peak of 50 million-100 million people, died The number of people reaches one million or more, which seriously threatens the life, health and safety of 8 billion people worldwide. Viruses seriously threaten the living environment of human beings, destroying human beings, destroying the economy, and causing more fearful and terrible consequences. If the epidemic continues to spread and expand, the consequences Unbearable. Countries including invisible patients, invisible transmission, or resurgence of death, the situation is more dangerous, it is bound to directly affect the survival of mankind. Governments and people of all countries must attach great importance and be vigilant, otherwise, the consequences will be unimaginable. Different countries have different national conditions, restrictions on medical resources, differences in economic environment, cultural systems and other reasons. They need to be treated differently, without dispute or blame. The top priority is to strictly prevent and control and treat, minimize the spread, and maximize the treatment and rescue of the patient. If you fail to make a decision, indecision, the consequences are terrible and unimaginable. Vaccine development takes time and must not be delayed, making a big mistake. Global patients include severe patients, and a considerable number of invisible patients, asymptomatic patients, conservative estimates of new patients, at least one million or more. This is not alarmist, indeed, the statistics of WHO, Hopps University, etc. do not include this part of patients and patients. The number of outbreaks in the United States, Brazil, India, Russia, and other countries is partly spreading infections, and the other part includes invisible patients, asymptomatic infections, and newly occurred patients with virus conversion. The number is difficult to count accurately. The epidemic situation has expanded and worsened due to various factors. Of course, prevention and control measures, medical measures, etc., including resumption of work, school, and market are too early, and prevention and control measures are missing. The new shows that the number of young patients is increasing. This shows that the harmful spread of viruses cannot be underestimated. The continuous development of the global plague requires effective measures to face it.

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With the global epidemic of the New Crown epidemic, people in the British scientific community and others have successively put forward the idea of

"group immunity". The so-called "group immunity" refers to the large-scale infection of an infectious disease by a biological group. After recovery, the body will automatically generate immunity to the infectious disease, thereby ensuring that this infectious disease will not be outbreak in the future. **“COVID-19 migrant ‘crisis within a crisis’**

Tens of millions of migrant workers, forced to return home after losing their jobs due to the COVID-19 lockdown, face unemployment and poverty in their home countries, warned the ILO.

Millions of migrant workers may be required to return home where labour markets, are now further weakened by the additional strain of high levels of unemployment and serious business

disruptions. In addition, their families will suffer from the loss of the remittances normally sent to

them.” (un.org Network screenshot))

Population genetics refers to the genetic composition of a population, ie the frequency of genes and genotypes in this population. For example, the population of pure line breeds is homogenous, and individuals are homozygous; while the population of open pollination group varieties is heterogeneous, and individuals are heterozygous. Studying the genetic composition of populations in crop breeding can help decision-making in breeding programs.

In terms of cultivation, the individual group composition of the crops planted on the same field is antagonized. This individual group may be composed of mixed crops, intercropping or single species of several crops. Studying the space occupied by each individual in the individual group and the composition of its phenotype and the dynamic coordination between individuals will help guide the cultivation of high-yield crops. In the face of group immunization, if the virus undergoes gene mutation and the sequence and structure of the protein change, so that people who were originally immune cannot recognize these changed viruses, then group immunization will be ineffective. There are two types of viruses—DNA viruses and RNA viruses. DNA viruses are more stable and less prone to mutation, while RNA viruses are unstable and prone to mutation. This new coronavirus is an RNA virus, which has a potential high risk of mutation and should be highly concerned.

The viral genome sequence data of the new coronavirus is very important for the treatment and prevention of the new coronavirus, and the development of vaccines and drugs is very important. Virus strains,

Viral genome sequence data, etiology, pathology, molecular biology, quantum chemistry, pharmacology, etc. are all important scientific data.

The Chinese Center for Disease Control and Prevention has officially released the new coronavirus epidemic situation and viral genome sequence data in June 2020 in Beijing through the "New Coronavirus National Science and Technology Resource Service System". Mainly includes genomic sequence data of confirmed cases in Beijing (NMDC60013902-01, NMDC60013903-02) and genomic sequence data of environmental samples (NMDC60013903-03), these three samples were collected on June 11, 2020, as a recent virus sample outbreak in Beijing. At the same time, the Chinese Center for Disease Control and Prevention also submitted the new crown epidemic situation and viral genome sequence data to the World Health Organization and the Global Influenza Data Initiative (GISAID) to share data globally.

(Network screenshot

Scientific research, factual speaking, data speaking, empirical speaking. Otherwise, it will violate scientific truth.

Network materials, network pictures, network screenshots are all historical memories and records.)

The 2019 New Coronavirus Resource Library contains meta information of the 2019 New Coronavirus (2019-nCoV) virus strains released from the NCBI's GenBank database and GISAID database. .

<http://virological.org/>) published the genome sequence of this virus. Soon after, the China CDC similarly published the SARS-CoV-2 genome sequence (and related epidemiological data) on the publicly accessible GISAID database (<https://www.gisaid.org/>). Importantly, the release of SARS-CoV-2 genomic sequence data has facilitated the rapid development of diagnostic tests and infectious clones. The race to develop effective vaccines and antiviral drugs is in progress, and clinical trials for antiviral drugs are gradually in progress. (Relevant genomic sequence data are quoted from relevant databases, medical journals such as "Cell", attached drawings, etc.),

Genomic sequence data

In the 1930s, avian infectious bronchitis virus (IBV) was found in the respiratory tract of chickens. Subsequently, viruses similar in structure to IBV were also found in human nasal lavage fluid and other animals. Because the surface of the virus has crown-shaped fibrillar proteins, it is named coronavirus. Avian infectious bronchitis virus, as the name implies, infects chickens through the respiratory tract, causing respiratory diseases in chickens. However, different IBV strains may attack the kidneys of chickens and some will attack the fallopian tubes. IBV was also isolated from other organs of the chicken, such as the glandular stomach and caecum tonsil.

As a potential drug for inhibiting 2019-nCoV coronavirus, the 2019-nCoV_PLP sequence was found in the 2019-nCoV protein sequence and found to have 86% amino acid homology with SARS-CoV_PLP.

.Gilead Sciences (Gilead Sciences)

The drug remdesivir, developed by Gilead, is undergoing five clinical trials worldwide. Ascletis Pharma Chinese pharmaceutical company Geli Biotechnology Co., Ltd. is conducting a trial to use two drugs that have been approved to treat HIV and hepatitis C to treat coronavirus infections.

. Moderna Therapeutics

Moderna set a record in the pharmaceutical industry with mRNA-1273 (a candidate vaccine), a candidate vaccine screened 42 days after the new coronavirus was successfully sequenced.

CanSino Biologics

The headquarters of Kangxinuo Bio-stock Co., Ltd. is located in Tianjin. The company is about to conduct clinical trials of a new coronavirus vaccine in China. Kang Xinuo's method is to extract a coronavirus gene code and entangle it with a harmless virus,

.Arcturus Therapeutics

Arcturus Therapeutics is developing a vaccine that relies on engineering RNA. The company plans to develop an RNA virus whose edited code produces a protein that resists viral infections and contains it in liquid nanoparticles.

.BioNTech

The German BioNTech company is developing an mRNA vaccine against a new coronavirus. .CureVac Similar to Moderna, CureVac uses synthetic mRNA to stimulate the production of antibody proteins. Eli Lilly and AbCellera of Canada cooperate to develop antibody therapy against coronavirus infection.

GlaxoSmithKline

As one of the world's largest vaccine manufacturers, GSK is providing its technology to a Chinese biotechnology company that is developing a coronavirus vaccine. .Inovio Pharmaceuticals (Inovio Pharmaceuticals)

For the past 40 years, Inovio has been working to convert DNA into drugs, and the company believes that its technology can quickly develop vaccines against new coronaviruses.

. Johnson & Johnson (Johnson & Johnson)

Johnson & Johnson, which has responded to outbreaks of Ebola and Zika in the past, is developing a multi-pronged therapy to deal with coronavirus.

.Pfizer Pharmaceuticals (Pfizer)

Vaccines and medicines

Renewable Pharmaceuticals

(Regeneron Pharmaceuticals)

Based on the technique of preparing human antibodies in genetically engineered mice. , Sanofi Pharmaceutical Company (Sanofi)

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Sanofi has successfully developed yellow fever and diphtheria vaccines. The company is currently working with the Biomedical Advanced Research and Development Authority (BARDA) to find a solution to the coronavirus problem. The method used by Sanofi includes extracting some coronavirus DNA and mixing it with the genetic material of a harmless virus to form a chimera that can trigger the human immune system without causing the patient to become ill .

Takeda Pharmaceutical Company (Takeda)

Drugs

Japanese pharmaceutical giant Takeda Pharmaceuticals is researching a therapy that originates from a blood sample of a coronavirus infection. The company takes blood samples from coronavirus infection survivors, collects plasma, and then isolates protective antibodies. This method is not a new idea. At least since the Spanish influenza pandemic in 1918,

blood transfusions have been used to deal with virus outbreaks. 16. Vir Biotechnology

Drugs

Vail Biotech is committed to the development of infectious disease drugs. The company has isolated antibodies from SARS survivors and is studying whether this antibody can be used to treat new coronavirus infections.

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Viral pneumonia is more common in winter and spring, and can be sporadic or outbreaks. The main clinical manifestations are fever, body aches, a small number of breathing difficulties, and lung infiltration. Viral pneumonia is related to the virulence of the virus, the route of infection, and the age and immune status of the host. The viruses that cause viral pneumonia are commonly known as influenza viruses, and the others are parainfluenza viruses, cytomegaloviruses, adenoviruses, rhinoviruses, and coronaviruses. The diagnosis depends on pathogenic examination, including virus isolation, serological examination, and detection of viral antigens and nucleic acids. The disease can be prevented and controlled, prevent indoor air circulation, avoid public places and places where people are crowded and closed, and wear masks when going out. Symptomatic treatment is the main clinical practice, and bed rest is required. The incidence and spread of new coronavirus pneumonia is very serious, and there are currently no special drugs and vaccines for prevention and treatment.

The new coronavirus pneumonia epidemic has 10 million patients and more than 500,000 deaths. It is estimated that the number of patients may be hundreds of millions, and the number of deaths will reach as many as one million. The epidemic has not ended, and it is still spreading. Especially in the United States, Brazil, India, Russia and other countries, there are not only middle-aged and elderly people, but also a large number of young patients. Invisible patients, asymptomatic infections, and new patients with new coronary pneumonia caused by cross-infection of various bacterial viruses cannot be ignored (including repeated epidemics). There are also about one million people in the world, which cannot be underestimated. Although the vaccine is important, it is time-consuming and urgent, and new special drugs cannot be successfully developed for the time being. Therefore, it is imperative to choose effective drugs, combined with other medical methods and technologies, to treat many patients, especially mild patients and general patients. In addition to strict prevention and control, effective drug treatment is the first choice. Some people think that the existing drugs are ineffective, and redisevir, hydroxychloroquine, etc., and antiviral drugs have no curative effect or obvious effect. These views are not correct. Because of the pathological display and certification of a large number of clinical cases, there are not many people who have recovered and recovered, including many who have been severely ill. In addition to medical measures such as breathing and artificial lungs, the rational and comprehensive application of drugs has played an important role and must not be ignored. Of it. Under the current real conditions, the rational and scientific use of drugs is very important. Otherwise, the mortality rate will increase greatly, and there will be more patients. Therefore, the choice of medicines is scientific and reasonable, and it is particularly important to adapt to local conditions and human diseases. Clinicians have a heavy responsibility. Scientific, reasonable and effective use of drugs, combined with other treatment methods, is the wise and realistic choice, there is no other way to find.

Viral infectious diseases have a huge impact on human health. Anti-hepatitis virus drugs mainly include interferons (such as interferon, pegylated interferon, etc.), nucleosides (acids) (such as emtricitabine, la Mifudine, adefovir dipivoxil, entecavir, etc.), anti-influenza virus drugs (such as inosine monophosphate deoxygenase inhibitor ribavirin, interferon-inducing drug abidol hydrochloride, M2 protein ion channel inhibitor adamantane Alkylamine and rimantadine, neuraminidase inhibitors oseltamivir and zanamivir, etc.), anti-human immunodeficiency virus drugs (zidovudine, nevirapine, delavirdine, efavirenz, etc.) The research of antiviral drugs has become an important topic in

the research and development of new drugs worldwide. Antiviral drugs are facing the challenge of drug resistant mutants. In order to overcome the shortcomings of antiviral drugs, effective new chemical entity drugs should be sought as much as possible. Existing drugs are structurally modified to prepare new derivatives; finding effective drug-loading drug release systems to improve the efficacy of antiviral drugs is the current research focus.

4 Anti-SARS-CoV drugs The new coronary virus SARS-CoV is the pathogen that causes SARS.

There are four broad categories of antiviral drugs. Inosine monophosphate deoxygenase inhibitors such as ribavirin. Interferon-inducing drugs such as Abidol Hydrochloride. Protein ion channel inhibitors, such as amantadine and amantadine, block the M protein to prevent viral unpacking and the release of their RNA to interfere with the entry of the virus into human cells, interrupt the early replication of the virus, and also inhibit viral assembly to play an anti-influenza virus. Neurolase inhibitors, etc.

(Relevant genomic sequence data are quoted from relevant databases, medical journals such as "Cell", attached drawings, etc.),

Through sequence alignment with other coronaviruses, the researchers first annotated the SARS-CoV-2 genome and found that its main components are the same as those of SARS-CoV and bat SL-CoVs, as shown in Figure 3. An amino acid homology comparison of its encoded proteins revealed that the amino acid homology of non-structural protein (nsp), envelope protein (E), and membrane protein (M) was higher, while that of spike protein S1 The variability is greater.

Coronavirus Sp protein is a key domain that binds to host cells. The S1 subunit contains the receptor binding domain (RBD). Through amino acid sequence alignment and protein tertiary structure prediction, it was found that SARS-CoV-2 The RBD of CoV-2 is very similar to SARS-CoV. It is speculated that the ACE2 receptor of SARS-CoV can also be combined with SARS-CoV-2, which mediates the invasion of SARS-CoV-2 into host cells.

And then published in "nature microbiology" and "Science" -ligand binding experiments verified this conjecture, confirming that ACE2 is the receptor of SARS-CoV-2 on the host cell.

Remdesivir is a nucleoside analog and is an RNA-dependent RNA polymerase inhibitor. It can synthesize anti-virus by inhibiting viral nucleic acid. The current clinical research on Ebola virus infection has reached stage II. Although there is currently no data demonstrating the anti-2019-nCoV activity of remdesivir, remdesivir has shown activity data in other coronaviruses. It shows good activity against MERS and SARS viruses in vitro and animal models. These viruses Similar to 2019-nCoV structure.

Compared with SARS virus and MERS virus, new coronaviruses are different new strains. According to the recent clinical data, the virus's spread seems to have increased, and the virus's toxicity and pathogenicity need to be based on more clinical data. Analysis and judgment. Protease inhibitors that may be used in the treatment of new coronavirus infections include Disulfiram, a drug approved

for the treatment of alcohol dependence, and Lopinavir/Ritonavir, which is Krezhi (Kaletra), Darunavir/Cobicistat (Prezcobix), etc.

For example, the approved immunomodulator Chloroquine and the approved Nitazoxanide for diarrhea have shown the ability to inhibit the new coronavirus in vitro. Chloroquine has been used as a cheap and safe drug for more than 70 years. It is a widely used antimalarial and autoimmune disease drug, and it has recently been reported as a potential broad-spectrum antiviral drug. 3CLPro is the main protease produced by the new coronavirus (2019-nCoV, SARS-CoV-

2). Most functional proteins (non-structural proteins) of coronavirus are encoded by the ORF1ab gene

3.

Severe infectious diseases in history have changed human history countless times. The Black Death, the American Plague, and the plague in the Song, Jin, Yuan, and Ming and Qing Dynasties have all had important impacts in history. The black death from 1347 to 1351. The plague is probably the most infectious disease that has the greatest impact on the development process of the world history. According to the literature, the disease has experienced many large-scale outbreaks in the history of the world, and the epidemic in Europe was the most serious from 1347 to 1351.

Black Death is a natural epidemic infectious disease caused by Yersinia pestis. Because the patient's skin has dark spots, it is called "Black Death". The Black Death in the 14th century caused a sharp decline in the European population, with one third to one half of the population dying from this terrible disease. For the next 300 years, the Black Death continued to spread in Eurasia, causing great harm and the largest number of deaths.

Smallpox is a severe infectious disease caused by smallpox virus. At the beginning, smallpox was only a funny virus in domestic animals. Later, as the virus evolved, it spread to humans and became a terrible serious infectious disease. The earliest recorded human smallpox virus infection occurred in ancient Egypt. At that time, the smallpox virus had a huge lethality, causing at least 300 million deaths and hundreds of millions of people were cured

The Spanish flu originated in the spring of 1918, which happened to be the first world war. A large number of outbreaks occurred in the world in the autumn of 1918. By 1920, about 100 million people were infected and 50 million to 100 million people died.

(Graphic data sources Wiki, <<cell> and other network resources and related journals, cited from these websites, hereby explain)

The focus of prevention and control: 1. Farmer's market 2. Hospital 3. Animal farm 3, slaughterhouse 4. Seafood meat market 5. Catering, shopping malls, supermarkets, etc. 6. Stations. Hall 7. Stations, ferries, airplanes, cars, trains and other places with dense personnel 8. Animal experiment places 8. Large-scale gatherings and performing arts sports events 9. Schools, kindergartens, nursing homes 10. Factory workshops 11. Customs, entry and exit 12. Religion Place,

church 13., Parks, beaches 14. Prisons 15 military camps 16. Canteens 17. Others and so on. Key groups: 1. Medical staff 2. Farmers' market merchants 3. Slaughter staff 4. Old and weak patients 5. Seafood meat processing 6. Customs, border inspection 7. Family history of infectious diseases, history of local infectious diseases 8. Others. Keep close contact with infectious patients. Bacteria and viruses can easily breed infected places and environments.

Pre-control and prevention: 1. People in the epidemic area take anti-virus, immune drugs 2 wear masks to avoid spreading infections at close range 3. mouth, nasal cavity, hands, pay attention to infections, airborne transmission, droplets, saliva, etc. 4. diet hygiene 5. animals Strictly eliminate meat and other food 6. Environment, water and other pollution-free 7. Air quality, ventilation and ventilation 8. Respiratory tract infectious diseases, pneumonia, influenza and other treatments and protection 9. Avoid the accumulation of personnel Prevention and control of the epidemic rebounded. 11. Asia, Europe, Latin America, Africa and other countries and regions adopt a variety of prevention and control models and methods. Even if the city is closed and the city is closed, it should be tailored to local conditions and people, scientific, rigorous, reasonable and appropriate. The key points are as above. Narrate. The combination of advanced technology and traditional ancient methods of prevention and treatment will allow most patients to recover and the mortality rate will be reduced. Otherwise, the epidemic will continue to expand, and the consequences can be imagined. Ordinary people, susceptible people, follow the doctor's advice, scientific, reasonable, take appropriate amount of drugs antiviral immune drugs, etc., to achieve the purpose of prevention and control.

4.

New Crown Virus Pneumonia, New Crown Pneumonia (COVID-19)

“The 2019 coronavirus outbreak is a global pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The epidemic was first discovered in Wuhan, Hubei Province, the People's Republic of China in December 2019, and then quickly spread to many countries around the world in early 2020, gradually becoming a global plague, described by many international organizations and media as the second since The most severe crisis facing the world since the World War. As of July 1, 2020, more than 220 countries and regions have reported more than 10 million confirmed cases and more than 500,000 patients have died.” (wikipedia website) Globally, there have been 9 million cases of US deaths and 120,000 deaths. The deaths will exceed 500,000-700,000, and will seriously reach 1 million. Cases may exceed 10 million, because the epidemic is still developing, especially in the Americas, the United States, and Brazil. Countries such as Asia and India, Africa, and China's Beijing epidemic have rebounded. The epidemic has not completely ended. There will be some differences in virus development and variation in Asia, America, Europe, Africa and other strains, but the state is the standard model of the new coronavirus model, and there will be no fundamental difference. Of course, the virus has certain differences in areas, countries, environmental group individuals, and human body differences. In addition, culture, concepts, national conditions, epidemic prevention and control methods are different. The patients in Europe, America, Latin America and other countries are still high, and they deserve attention and research. Through a large number of case comparison studies and comparative analysis, the existence of differences in regions, races, groups and individuals, viral characteristics, infections, mortality differences and differences cannot be ruled out. Of course, the epidemic prevention model is very important. Certain differences in the effects of drug use in regions, races, groups, and individuals also exist and cannot be denied. The prevention and recurrence of the new coronavirus pneumonia and repeated epidemics are prominent problems. The epidemic has rapidly spread from Asia to Europe and Latin America and other regions and countries. It can be seen that the infection and long-term recurrence of the new coronavirus. 1. The spread of the virus is widespread and long-lasting 2. The occurrence of susceptible people 3. The prevention and control of the epidemic and the use of effective drugs, the key populations in the epidemic area should take antiviral immune respiratory infections and other drugs. Prevention and pre-control. 3. Viruses and human animals coexist. Viruses exist for a long time and will not go back easily. To prevent a new epidemic from happening, fall/winter 2020, winter/spring 2021, can not be careless. 4. Although there are no special drugs and vaccines for new coronavirus pneumonia, it is not an incurable disease. Most patients can be cured by using effective drugs and other suppression methods. 5. New Coronavirus pneumonia is mainly transmitted by mouth, nose, body, and air (close contact transmission, air gas enters the nasal cavity, oral cavity, etc.), especially including recessive transmission, asymptomatic infection, minor patients, various viruses Patients with mutual induction of bacteria have a long virus incubation period and cross infection with various bacterial viruses. Under certain conditions, non-new coronavirus will also become new coronavirus pneumonia. Induced infection by bacterial viruses is also a condition for the initiation of a large number of cases. 6. A large number of experimental studies and pathological studies have shown that the new coronaviruses mainly come from animals, farmers' markets, wild animals, meat, seafood, poultry, etc., which are most likely to produce and spread such viruses. Of course, it is also possible to spread the infection through other methods and means. These need to be proved by further research in the future. However, the chain of transmission is very clear. Whether bats, pangolins, or other animals, all need to be proved by future research. 7. The new coronavirus pneumonia is highly contagious, with tens of millions of patients and nearly 500,000 or more deaths. This infectious disease is coronavirus is a serious respiratory tract, and has similarities and differences with Sars, Middle East respiratory infectious disease, Ebola virus and so on. Respiratory tract infectious diseases such as severe pneumonia, white lung disease, large-scale influenza, pneumonia, etc. are one of the most susceptible diseases of human beings, and there are many deaths every year. Therefore, to prevent pre-control, key regions, key populations, key industries, etc. should not be paralyzed. Winter and spring, old and weak patients,

hospitals, large gatherings, customs, ferries, trains, planes and other confined spaces. Stations, farmers' markets, slaughtering and processing, catering, dirty and messy environments, water sources, vegetables and local epidemics, etc. are particularly

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The new coronavirus pneumonia epidemic has 10 million patients and more than 500,000 deaths. It is estimated that the number of patients may be hundreds of millions, and the number of deaths will reach as many as one million. The epidemic has not ended, and it is still spreading. Especially in the United States, Brazil, India, Russia and other countries, there are not only middle-aged and elderly people, but also a large number of young patients. Invisible patients, asymptomatic infections, and new patients with new coronary pneumonia caused by cross-infection of various bacterial viruses cannot be ignored (including repeated epidemics). There are also about one million people in the world, which cannot be underestimated. Although the vaccine is important, it is time-consuming and urgent, and new special drugs cannot be successfully developed for the time being. Therefore, it is imperative to choose effective drugs, combined with other medical methods and technologies, to treat many patients, especially mild patients and general patients. In addition to strict prevention and control, effective drug treatment is the first choice. Some people think that the existing drugs are ineffective, such as rildcive, etc., and antiviral drugs have no curative effect or obvious effect. These views are not correct. Because of

recovered and recovered, including many who have been severely ill. In addition to medical measures such as breathing and artificial lungs, the rational and comprehensive application of drugs has played an important role and must not be ignored. Of it. Under the current real conditions, the rational and scientific use of drugs is very important. Otherwise, the mortality rate will increase greatly, and there will be more patients. Therefore, the choice of medicines is scientific and reasonable, and it is particularly important to adapt to local conditions and human diseases. Clinicians have a heavy responsibility. Scientific, reasonable and effective use of drugs, combined with other treatment methods, is the wise and realistic choice, there is no other way to find.

Pakistan, Bangladesh, Canada. There are 7 countries with more than 10,000 deaths, namely the United States, Brazil, Spain, the United Kingdom, Italy, France and Mexico.

From

. New coronavirus pneumonia rages across the world and becomes a global plague. The number of patients and deaths are shocking. The time is long. The range is wide. The transmission coefficient and infection coefficient are difficult to effectively treat. For a long time, it has been up to half a year, and there has not been a decline. It has a major impact on global politics, economy, culture, education, sports, religion, etc., with losses of up to one trillion dollars. If mankind fails to respond effectively to suppression, major disasters will occur worldwide, and the consequences and consequences will be unimaginable. Although group immunization makes sense, it is too costly and deserves reflection and discussion. Therefore, it is very important to use effective drugs and vaccines to prevent and treat symptomatic diseases. Before new special drugs and vaccines are developed, it is especially necessary to respond to effective drugs and try to reduce morbidity and mortality.

Many people believe that the new coronavirus pneumonia has no specific drugs and no vaccine, and it is an incurable disease. Many industry experts share this view. This kind of cognition and

viewpoint must say that it is not wrong. However, there are not only high mortality data in clinical practice, but also a relatively high cure rate. In addition to the patient's condition, medical technology and other reasons, various effective drugs have played a major role, of course, including ventilators, artificial lungs, tube cutting and other rescue medical methods and technologies. According to clinical data, 85% to 93% of patients mainly rely on various medicines to cure, including critically ill late rescue. Most patients are mainly treated with various medicines, especially mild patients and ordinary infected patients. This fully proves the important role of drug control. For critically ill patients, the use of ventilator, artificial lung, intubation, etc. and comprehensive treatment of medical treatment is about 15% -25%. Of course, the cases in different countries in the world are different. Difference or contrast. It is calculated based on the cure rate and average value of the total cases worldwide. Therefore, the significance and clinical effectiveness of various drug treatments cannot be underestimated. This is the most obvious truth, obvious. If you ignore or ignore the important role of drugs, where does the cure rate come from? Where do the large-scale recovery rates, such as sheltered hospitals, come from? What is a magic medicine? What is a new special medicine? Nowadays, we can only look for the wonderful things from the existing effective medicines. If you just wait for new special medicines and new vaccines to come out, the mortality rate will be as high as 56% -92.5%, which is even common knowledge for even three-year-olds. Time is life, time is money, time is price, time is victory or defeat. Even if the isolation such as the closure of the city is effective again, the final victory over the disease mainly requires the completion of various effective drugs. Only when the chemical substances enter the human body will it have a curative effect. (Intubation, ventilator, artificial lung, etc. undoubtedly play an irreplaceable role for drugs, and the two complement each other). Global shutdown for one minute, the economic loss is 300-800 billion US dollars; the United States will die one patient in 26-35 minutes (average count).

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***** Antivirus The drug of choice is Ribavirin (triazole ribonucleoside, Virazole). [Mechanism of action] is a broad-spectrum antiviral drug, which may inhibit phosphocreatinine dehydrogenase, prevent guanine nucleotides from being synthesized and prevent viral nucleic acids synthesis. It is effective against influenza viruses (type A and B), DNA and RNA viruses, but has no obvious effect on hepatitis B virus; it has preventive and therapeutic effects on viral pneumonia, hepatitis A, herpes, and measles, but clinical evaluations are mixed.

Amantadine hydrochloride Rimantadine Hydrochloride antiviral drugs

Polyinosinic Polycytidylic Acid

Interferons [Mechanism of Action] This product is a class of antiviral glycoproteins produced by vertebrate cells after other infections caused by viral infection. It is used for the treatment or adjuvant treatment of viral infections, such as viral keratitis, hepatitis, influenza, etc., and malignant tumors.

Amantadini Hydrochloridum

Aulenuridine Holpin, Brivudine, Audeyl Deoxyuridine, Adefuridine

Hydroxymethyl acyclovir ganciclovir

Redoxivir azithromycin chloroquine phosphate and so on.

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3 ribavirin

4 Amantadine hydrochloride

5 acyclovir

6 Deoxyacyclic guanosine dideoxycytidine 7 Polyinosinic acid

8 interferon

9 Amantadine hydrochloride

10 Briwood

11 Virus Spirit

12 Adenosine arabinoside 13 Zidovudine

14 dideoxythymidine

15 ganciclovir

16 iodine herpes net

17 telbivudine

18. Dexamethasone For the treatment of severe new coronary pneumonia, British doctors found the effect and effectiveness of dexamethasone. The common side effects of dexamethasone in the treatment of other diseases include anxiety, difficulty sleeping, weight gain, and fluid retention. Less common side effects include eye discomfort, blurred vision, and bleeding.

However, patients with new coronavirus only need to use a relatively small amount of medicine to follow the doctor's advice, so side effects should be limited.

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■■■ Immunopharmaceuticals First choice drug protein powder, thymus pentapeptide, thymus peptide, and injections to improve immunity, such as human albumin, lentinan, etc.

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■■■■ Antipneumonia Drugs The first choice for viral pneumonia. The commonly used drugs used to be beneficial to bevirin, but now oseltamivir can also be taken by mouth. For bacterial infections, we usually use various penicillin drugs and cephalosporin drugs. For mycoplasmal pneumonia infections, usually azithromycin, or erythromycin, roxithromycin, etc.

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■■■■■ * Anti-bacteria Anti-bacterial drugs mainly include chemical synthesis: (1) quinones (2) sulfonamides. Antibiotics: (1) Penicillins (2) Chloramphenicol (3) Macrolides (4) Tetracyclines drug

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First choice drug against respiratory infections

■■■■■■■■■ due to drug protease inhibits recombinant hepatitis B vaccine (various other recombinant vaccines)

Recombinant Erythropoietin

Interleukin

Antagonist

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A■■■■■■■■■■ compound drug preferred drug bio-missile-virus target tracking bio-virus missile-compound drug

■■■■■■■■■■■ Pneumonia vaccine The drug of first choice Pneumonia vaccine is a very mature vaccine. The first population is patients with chronic underlying diseases. Especially suffering from congenital heart disease, congestive heart failure, cardiomyopathy, and chronic lung disease, especially chronic obstructive pulmonary disease, pulmonary edema asthma, chronic liver disease, cirrhosis and diabetic cochlear implant, cerebrospinal fluid leakage, etc. Diseases are all people who need pneumonia vaccine.

The second population is functional or anatomical asplenia.

Chain cell disease and other hemoglobin diseases, congenital or acquired asplenia, splenic dysfunction, splenectomy patients are also pneumonia vaccination groups.

The third type of population is those with impaired immune function.

If there is congenital or acquired immunodeficiency, or HIV infection or chronic renal failure nephrotic syndrome, systemic malignant tumor, bone marrow transplantation and the need for immunosuppressive drugs, long-term treatment with sebaceous hormones, and radiotherapy and chemotherapy Patients also need to be vaccinated against pneumonia.

In addition to the pneumonia vaccines for the three groups above, in fact, infants, young children, elderly people, and patients with alcoholism and smoking are also at high risk of pneumonia. They should also be vaccinated according to their physical conditions.

The pneumonia vaccine is not a newly developed vaccine for the new coronavirus pneumonia.

Pneumonia combined vaccine, pneumonia combined vaccine is vaccination PC v7

Pneumonia polysaccharide vaccine, 23-valent polysaccharide vaccine is also known as pneumonia polysaccharide vaccine. This vaccine can cover 23 serotypes that can cause

According to real-time statistical data from Johns Hopkins University in the United States, the number of confirmed cases of new pneumonia in Turkey increased to 47,029, with a total of 1,006 deaths and 2,423 people recovering.

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A total of 22,059 cases were diagnosed in Canada, the official prediction of the new crown epidemic or the death of 10,000 people

According to real-time statistics from Johns Hopkins University in the United States, the number of confirmed cases of new coronary pneumonia in Canada increased to 22,148, with a total of 570 deaths and 5,892 people recovering.

The new Crown Epidemiological Model released by the Canadian government recently shows that even according to the median value of the most ideal situation, 2.5% of the country's population, that is, about 934,000 people may be infected with the new crown virus, and about 11,000 people will die.

A total of 6134 cases were diagnosed in Japan.

According to the Japan Broadcasting Association, as of 11 p.m. local time, 589 new cases of new coronary pneumonia were diagnosed in Japan, with a total of 119 deaths and a total of 6134 confirmed diagnoses. Among them, there were 189 newly confirmed cases in Tokyo. Currently, 1,705 cases have been diagnosed in Tokyo.

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In addition to Italy, Spain, France, Germany, and the United Kingdom, 26667 cases were diagnosed in Belgium; 24551 cases were diagnosed in Switzerland and Liechtenstein; 23249 cases were diagnosed in the Netherlands; 15472 cases were diagnosed in Portugal; 9685 cases were diagnosed in Sweden; 6314 cases were diagnosed in Norway; 10408 cases were diagnosed in Israel; 4346 cases were diagnosed in Malaysia; 4695 cases were diagnosed in Pakistan; 2473 cases were diagnosed in Thailand; 3651 cases were diagnosed in Saudi Arabia; 7598 cases were diagnosed in India; 2108 cases were diagnosed in Singapore; 1279 cases were diagnosed in Iraq; 993 cases were confirmed in Kuwait; 257 cases were confirmed in Vietnam.

6215 cases were diagnosed in Australia; 1283 cases were diagnosed in New Zealand.

There were 19638 cases in Brazil, 5897 cases in Peru and 171 cases in Venezuela.

(Source: Johns Hopkins University data, World Health Organization, bbc, Wikipedia, encyclopedia website, etc.)

----- Compilation instructions

This book is a study of the new coronavirus pneumonia. It is of great significance to publish this book while the new coronary pneumonia is still spreading in the world. The New Crown Virus Gene Atlas, pathological etiology, New Crown Virus Pneumonia drug treatment and other major issues are all shown in the book.

The new coronavirus pneumonia is a particularly important public health event in the world. It has a large scale and great impact. It has 10 million illnesses and more than 500,000 deaths. It involves billions of people around the world. The epidemic is still spreading. It has special significance for the study of new coronavirus pneumonia. 1. Pathogenic transmission 2. Pathology 3, virology, immunity. 4. Epidemiology. 5. Medical 6. Drugs, vaccines. 7. Epidemic prevention, anti-epidemic. 8. Respiratory tract infections and pneumonia. 9. Gene map. 10. Molecular biology, viral quantum chemistry. 11. Antiviral drug chemistry. 13. Response and epidemic prevention measures for large-scale epidemic infectious diseases, emergency management 14. Integration of medical resources, global forecast and early warning system for major epidemic infectious diseases 15. Emergency diagnosis and treatment of unexplained major infectious diseases, drug selection and use 16. Medical The system responds to sudden large-scale epidemic infectious disease treatment procedures and medical technology management procedures and specifications. 17. Sequencing and analysis of viruses. 18. Epidemic reports and international notifications. 19. Global network forecasting and early warning system for major epidemic infectious diseases. 20. Asian cases, European cases, Latin American cases, African cases, gene sequences, etc. 21. Invisible transmission, asymptomatic transmission. 22. Various bacterial viruses induce cross-infection with each other to germinate new coronaviruses 23. The damage of new coronary pneumonia to the body, complications and sequelae. twenty three,. The mutation and evolution of the new coronavirus, the long-term repetitive complexity of prevention and control. 24 others. A lot of space is needed to discuss and demonstrate these issues. Here, it is simple to delete the complex, mainly to discuss some major medical issues, such as the New Crown Virus Gene Atlas, pathological etiology, New Crown Virus pneumonia drug treatment and other major issues, which is the top priority, and the whole body is affected. This is the core and the key. Of course, other issues are also very important, this

book mainly discusses and studies these key issues. In the future, it will be discussed in detail when publishing large-scale works. In a hurry, this book is mainly for the needs of the general public, netizens and readers from all over the world, including the majority of medical workers, medical and pharmaceutical colleagues, vaccine and pharmaceutical manufacturers, etc., and is published after the author has revised and finalized it. There are many shortcomings, I hope to correct it when reprinting. (The relevant chart materials in the book are quoted from related websites or network screenshots, Wiki, Who, Cell, Lancet, Encyclopedia, etc.)
Compilation June 26, 2020

-----Mainly refer to cited materials, literature, websites, gene banks, charts, books, encyclopedia network resources, etc.:

Wikipedia

British Encyclopedia

GenBank database (<https://www.ncbi.nlm.nih.gov/genbank/sars-cov-2-seqs/>) and GISAID database (<https://www.gisaid.org/>)

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2. <https://www.elsevier.com/connect/coronavirus-information-center>

3. <https://www.thelancet.com/coronavirus>

4. Lancet Coronavirus Center: <http://www.thelancet.com/>

5. The latest coronavirus information: http://mp.weixin.qq.com/s?__biz

<https://www.biomedcentral.com/collections/>

And other information.

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La grande peste des humains dans le monde au 21e siècle --- Nouvelle pneumonie à coronavirus (par Fangruida)
2020v1.3 compilé par Lisa

préface

10 millions de personnes tombent malades et plus de 500 000 personnes meurent ---- Le nombre de patients atteints d'une nouvelle pneumonie à coronavirus dépassera 100 millions dans le monde, et l'alarme de prévention et de contrôle retentira à nouveau

Selon un rapport de l'Université Johns Hopkins aux États-Unis, il y a eu plus de 10 millions de cas de nouvelles infections à coronavirus dans le monde et plus de 500 000 décès.

L'Organisation mondiale de la santé a déclaré que les nouveaux cas quotidiens avaient établi un nouveau record dimanche, atteignant 189 000. Le Brésil compte le plus de nouveaux cas, avec 47 000 nouveaux cas au cours des dernières 24 heures.

De nombreux experts de la santé affirment que le nombre réel de cas d'infection dans le monde peut dépasser de loin les chiffres publiés, car certains pays peuvent sous-déclarer les données pertinentes.

Plus de 10,11 millions, avec un décès cumulé de plus de 500 000. Selon les données de Reuters, 1 personne décède d'une maladie associée au nouveau coronavirus toutes les 18 secondes.

Au total, plus de 2,5 millions de personnes ont été diagnostiquées avec le virus aux États-Unis, le plus au monde. Le Brésil est le pays avec le deuxième plus grand nombre de nouveaux cas de coronavirus dans le monde, avec 1,13 million de personnes diagnostiquées avec une infection et 57 000 décès. Certains chercheurs affirment qu'en octobre de cette année, le nombre de morts du nouveau coronavirus en Amérique latine pourrait dépasser 380 000.

(Les éléments graphiques pertinents dans le livre sont cités à partir de sites Web connexes ou de captures d'écran de réseaux, Wiki, Who, Cell, Lancet, Encyclopedia, etc.)

Selon Reuters, sur la base des données moyennes du 1er au 27 juin, plus de 4700 personnes sont décédées de maladies liées au nouveau coronavirus toutes les 24 heures, soit 196 personnes sont décédées toutes les heures ou toutes les 18 secondes. 1 personne est décédée.

L'explosion de la bombe nucléaire du nouveau virus Corona, si les pays ne prennent pas de mesures de prévention et de contrôle plus efficaces et décisives, le virus sera sans scrupules, de 10 millions à continuer de grimper à un nouveau niveau, atteindra un nouveau pic de 50 millions - 100 millions de personnes décédées. Le nombre de personnes atteint un million ou plus, ce qui menace gravement la vie, la santé et la sécurité de 8 milliards de personnes dans le monde.

呼吸感染性肺炎和難治性冠狀病毒性肺炎的化學藥品的鑑別診斷和有效治療

Sars, 冠狀病毒性肺炎等的發展/冠狀型病毒性肺炎生物标志物及治疗防治（方瑞達） 修改版 2020v5.0 中文版本

According to real-time data from Johns Hopkins University in the United States, as of around 2:12 on June 28, Beijing time, the cumulative number of new cases of new coronary pneumonia has reached 9,866,685; the cumulative number of deaths has reached 495,692.

United States

New coronavirus confirmed cases continue to rise in many US states,

The number of new coronavirus diseases admitted to hospitals in Texas, Utah, Arkansas, Arizona and other states has increased. California and Florida saw the largest increase in newly diagnosed cases in a single day.

According to data from Johns Hopkins University, more than 2.38 million confirmed cases in the United States and more than 120,000 deaths.

Pneumonia epidemic: the total number of confirmed new crowns in the world is approaching 10 million

Pneumonia epidemic: The number of deaths in the United States exceeded 100,000, and the number of diagnoses in Brazil rose to second in the world.

Germany

Germany has previously been regarded as a model for European countries to fight against the new coronavirus disease. The key anti-epidemic measures include virus screening and epidemic follow-up investigations that began very early, so it can maintain a relatively low number of infections and deaths.

The most serious of these is the meat processing plant. The Tönnies meat processing plant in North Rhine-Westphalia has approximately 7,000 employees and is the largest meat processing plant in Germany. In total, more than 1500 workers were infected.

These recent outbreaks of cluster infections have also caused Germany's basic infection

number "R value" to climb again to 2.88.

Brazil

Brazil has more than 1.18 million confirmed cases and nearly 54,000 deaths, making it the second highest country in the world.

On Wednesday (June 24), the number of newly diagnosed people in Brazil was 42,725. Although it has declined, it is still high, with 1,185 deaths.

Brazil's new coronavirus confirmed the world's third

India

India's newly confirmed cases in a single day broke through a new high again this week. On Thursday, the number of newly diagnosed cases reached 16,922, surpassing 15,968 people the day before.

Data from Johns Hopkins University show that more than 470,000 cases have been diagnosed in India and 14,894 people have died.

According to the Indian Ministry of Health, Maharashtra, New Delhi and Tamil Nadu are the most severely affected areas, accounting for about 60% of all confirmed cases in India. The situation is not optimistic.

The Russian epidemic is also very serious. Parade in Moscow, Russia.

*現代科學技術和生物醫學工程發展迅速。醫學，基因工程，細胞，酶和蛋白質微生物學尤為重要。諸如肺炎等呼吸道傳染病在臨床研究中也取得了重大進展。非典，細菌性病毒性肺炎和其他常見的困難疾病也有所增加。肺炎，肺部疾病，肺癌和其他肺部疾病首當其衝。細菌性和病毒性肺部疾病是代表性的。在生物學和醫學上，病毒類型很多，冠狀病毒是一種重要的病毒。它擴散到人，動物和牲畜的許多組織和器官，引起各種嚴重的疾病，嚴重威脅著人類的健康。特別是它的專一性和困難性，感染的危害性特別顯著，傳染性的爆炸性也不同。特別是在冬季和春季，病毒性肺炎，細菌性肺炎，流感和肺炎極易發生，在大範圍傳播，並且死亡率很高。被這些疾病感染的動物還具有很高的死亡率，起效快，潛伏期短和傳播力強。它是人類最有可能發生的第一種疾病和瘟疫。而且，當今的醫療技術和藥物在對症治療中並不有效。像非典，癌症，艾滋病和世界上其他主要殺手一樣，他們奪走了數百萬人的生命。疑難疾病的研究和治療，醫療技術，臨床診斷，藥物開發，重症監護等需要長期研究，病理分析，病毒化學分析，對症藥物開發，化學結構設計和修飾，動物學研究，獸醫研究醫學實驗研究，獸醫和醫學雙向研究，臨床試驗，病毒模型研究，生化生物物理學研究實驗，微生物學，生物工程，基因工程，細胞學，酶化學，蛋白質學等，巨額投資，研發週期長，研究困難。它需要所有人類和醫學藥劑師的關注。這不可能一 overnight 而就。

肺炎的類型很多，重點是病毒和細菌。Sars 和病毒（冠狀病毒等），這裡主要討論後者。當然，病毒的產生和進化存在多種可能性和途徑，例如遺傳變異，並且新病毒也可能發芽，但是病毒的相關特徵和穩定性也具有某些條件和機制，這需要嚴格的經驗。

冠狀病毒是一類 RNA 病毒的總稱。它們經常感染哺乳動物和鳥類，例如導致牛和豬的消化系統疾病或雞的上呼吸道疾病。冠狀病毒還會引起人類呼吸道感染，通常是輕微的，但有時是致命的。冠狀病毒可引起普通感冒的 10% 至 15%。

從分類學上講，冠狀病毒是指網狀病毒科的冠狀病毒家族，它被分為冠狀病毒亞家族和輪狀病毒亞家族的兩個亞家族。冠狀病毒亞科分為四個屬： α ， β ， γ 和 δ 。冠狀病毒的基因組大小在 26000 至 32000 個鹼基對之間，使其成為基因組中最大的 RNA 病毒。

在電子顯微鏡下，日冕病毒的邊緣具有日冕狀突起，看起來像冠狀，因此被稱為日冕病毒。這種模式是由病毒棘突（S）的棒狀包膜顆粒形成的，這些顆粒用於與宿主受體連接並感染宿主細胞。冠狀病毒是包膜病毒，其遺傳物質為正鏈 RNA 基因組，並具有螺旋對稱的外殼蛋白。

冠狀病毒是自然界中常見的病毒，不同的冠狀病毒可以感染多種哺乳動物和鳥類。已知有七種冠狀病毒可感染人類。其中，重症急性呼吸綜合徵冠狀病毒，中東呼吸綜合徵冠狀病毒 HCoV-229E，HCoV-NL63，

HcoV-HKU1 和 HcoV-OC43 的四種冠狀病毒是人感冒的常見病原體，通常不會引起嚴重的疾病。少數免疫力較差的患者可能會出現肺炎等並發症。

已證明有效的病毒抑製藥物包括：①利巴韋林具有廣譜抗病毒功能，包括呼吸道合胞病毒，腺病毒，副流感病毒和流感病毒。 ②阿昔洛韋是化學合成的抗

抗病毒藥物是一類專門用於治療病毒感染的藥物。（殺病毒劑）不同，前者用於抑制體內的病毒，而後者則用於在體外破壞病毒。

抗病毒藥物的機制是通過影響某些干擾病毒複製週期的環節來防止病毒進一步感染。例如，直接抑製或殺死病毒，干擾病毒的吸附，防止病毒滲透到細胞中，抑制病毒的生物合成，抑制病毒的釋放或增強宿主的抗病毒能力等。

目前，大多數抗病毒藥物都用於抵抗 HIV，皰疹病毒，乙型和丙型肝炎病毒以及甲型和乙型流感病毒。

抗病毒藥分為以下幾類：

1. 滲透和脫殼抑製劑：金剛烷胺，金剛烷胺，Enveirdi, Maravero
2. DNA 聚合酶抑製劑：阿昔洛韋，更昔洛韋，伐昔洛韋，泛昔洛韋，膦酸鈉
3. 逆轉錄酶抑製劑：
 1. 核苷：拉米夫定，齊多夫定，恩曲他濱，替諾福韋，阿德福韋酯
 2. 非核苷：依非韋倫，奈韋拉平
4. 蛋白質抑製劑：沙奎那韋
5. 神經氨酸酶抑製劑：奧司他韋，扎那米韋
6. 廣譜抗病毒藥：利巴韋林，干擾素

這些藥物具有顯著的療效或顯著的療效，值得認可。新藥設計和化學結構修飾，結合生物醫學工程技術和基因工程等，將逐步開發新藥。特別是用於開發 Sars，冠狀病毒性肺炎等藥物。當然，植物藥或複方製劑將逐步開發。有關治療藥物和獸醫治療肺炎藥物要仔細研究，對比研究，從而做出比對和選擇。應用人體的醫學藥物，聯合用藥也要科學適量，無毒副作用無，致癌，無畸變，嚴格配伍禁忌，確保有效。

A. 傳統醫學 冠狀型病毒性肺炎生物标志物及治疗防治

B. 化學藥品重症患者的抗病毒藥，免疫藥，抗菌藥，遺傳藥（聯合藥）等。

C. 植物藥

D. 複合藥物

E. 免疫，疫苗

F. 其他理療

G. 基因治療

H. 用於呼吸道傳染病的醫療消毒解毒室物理儀器治療呼吸治療

J. 肺物理醫療器械

K. 某些獸藥（肺炎藥，例如牛，羊，豬，狗，貓等，選擇性減少和適應，嚴格選擇對人體無傷害和有毒副作用），這些藥物也可以指代，包括臨床研究，新藥開發。有關治療藥物和獸醫治療肺炎藥物要仔細研究，對比研究，從而做出比對和選擇。應用人體的醫學藥物，聯合用藥也要科學適量，無毒副作用無，致癌，無畸變，嚴格配伍禁忌，確保有效。

L. 其他。

M. 服用上述技術和藥物會產生一定的效果。對於冠狀病毒的消防，它將在細菌性病毒性肺炎（Sars，呼吸帶傳染病，例如冠狀病毒性肺炎）中發揮非常重要的作用。在這個階段，效率是顯而易見的。儘管這是一種困難的疾病，但它不是無法治癒的疾病，其效率和治愈率將是最好的。這對於抑制肺炎疾病的大規模蔓延以及對該疾病患者的醫學治療很重要。

當前已知的流感病毒是 A、B 和 C 型，其流行主要是 A 和 B。金剛烷胺和金剛乙胺僅對 A 型流感病毒具有抑制作用，並且具有相似的功效。早期治療輕度甲型流感可以減少發燒並縮短病程。這種藥物是一種方便的口服藥物，但是它容易產生耐藥性，並且還可能引起不良反應，例如頭暈和失眠。利巴韋林是一種廣譜抗病毒藥物，可在體內和體外抑制多種 DNA 和 RNA 病毒。它適用於呼吸道融合性支氣管炎，帶狀皰疹和小兒腺病毒性肺炎，也可用於治療流行性出血。發燒的首選藥物。中國學者在呼吸道病毒感染的噴霧劑和滴鼻劑以及小兒腺病毒感染的靜脈注射劑方面也取得了良好的效果。其氣霧劑和氣霧劑在國外用於治療流感和呼吸道合胞病毒性肺炎，效果確切。流感病毒神經氨酸酶可以促進新形成的流感病毒從感染細胞中釋放，並從呼吸道粘膜擴散到周圍組織。神經氨酸酶抑制劑扎那米韋是一種新型抗病毒藥物，可以有效抑制甲型和乙型流感病毒。它對許多神經氨酸酶依賴性病毒流行病具有相同的治療效果，並且具有多種選擇，具有性別高，毒性低，活性強，劑量小，作用範圍廣，預防效果好的優點。扎那米韋的口服生物利用度非常低，只能口服或經鼻給藥。Osetamivir（Damifi）是神經氨酸酶的另一種有效抑制劑，是活性藥物 GS-4071 的前體，對流感病毒神經氨酸酶的抑制活性是 zanamivir 的 3 至 6 倍。美味的藥。Primivir 是一種新型的抗流感神經氨酸酶抑制劑

人類的冠狀病毒種類比較多，分別屬於第 I 類和第 II 類。一些陸續被發現的冠狀病毒新種如水貂冠狀病毒、兔冠狀病毒等，抗病毒金剛胺和 Isathiazone 化合物能夠抑制 TGEV 在細胞培養中的增殖；人冠狀病毒 229E 株和 TGEV 的受體抑制劑為 Ubenimex(商品名為百士欣或烏苯美司)以及

奧司他韋

苯佐那酯等藥物也有參考使用價值。

犬冠狀病毒貓冠狀病毒豬肺炎病毒 羊肺炎病毒 牛肺炎病毒 馬肺炎病毒 土黴素、替米考星、氟苯尼考或泰拉菌素牛病毒性肺炎。馬鼻肺炎病毒（EHV1）可分為 2 個亞型，即亞型 1 又叫胎兒亞型，主要導致流產；亞型 2 又叫呼吸系統型，主要導致呼吸道症狀。EHV1 能在雞胚成纖維細胞以及馬、牛、羊、豬、犬、貓、倉鼠、兔和猴等多種動物的原代細胞上增殖，此外不能在牛胎腎、綿羊胎腎和兔胎腎等多種傳代細胞內增殖

SV40 全名猿猴空泡病毒 40（Simian vacuolating virus 40）或猿猴病毒 40（Simian virus 40），是一種多瘤病毒，也是一種 DNA 病毒。

（Simian virus 40），是一種多瘤病毒，也是一種 DNA 病毒

中東呼吸系統綜合徵冠狀病毒是導致中東呼吸系統綜合徵的病原體（英文縮寫：MERS-CoV 或代號：EMC/2012 ‘HCoV-EMC/2012’

肺是很多進行空氣呼吸的動物的呼吸系統中重要的一個器官哺乳動物和其他身體結構較為複雜的動物則擁有兩個肺，其位於胸腔中靠近脊柱，並分別位於心臟的左右兩側。

世界肺炎日(World Pneumonia Day)於 2009 年 11 月 2 日由全球近百個組織和機構組成的聯盟——全球消滅兒童肺炎聯盟(The Global Coalition against Child Pneumonia)發起。並確定與每年的 11 月 12 日是世界肺炎日，以督促政府加強對肺炎的預防和治療。世界衛生組織和聯合國兒童基金會發布了《肺炎預防和控制全球行動計劃》（The Global Action Plan for the Prevention and Control of Pneumonia (GAPP) 肺炎，這種大多數人並不陌生的疾病，卻是全世界 5 歲以下兒童的頭號“殺手”，每年造成約 200 萬名 5 歲以下兒童死亡，平均每 15 秒鐘就會有一名兒童死於肺炎。（肺結核，肺癌等也是肺部疾病患者的殺手）。中老年死於肺病的人數每年也是百萬計數。

綜上所述，對於 Sars 和冠狀型新病毒性肺炎等的研究和治療預防，都是十分重要的，特別是對於傳染性冠狀型病毒肺炎的治療預防關係重大，事關人們的生命健康，意義重大。

- 1.傳染源 自然與動物有極大關係，但也不排除其他傳染途徑。
- 2 醫學研究和防治除了人體的特殊基因細胞外，動物試驗研究也很重要，不排除人畜共患的因素。所以，對動物家畜的相關冠狀型病毒肺炎病毒要加大研究，獸醫學和醫學的緊密結合，包括實驗，病原病理藥物治療等。
- 3.在現有的技術條件下，如何醫療救治是重中之重，救治生命，防止疫病擴散傳播蔓延，事關重大。大的瘟疫和傳染病的危害性後果不堪設想。抑製藥物醫療藥物免疫藥物滅病毒藥物尤為重要。
- 4.隨著時代的發展，生命物種的繁衍和進化，自然界生物界也在發生變化。病菌病毒的進化及其變異也會發生，值得高度關注和人類警惕警覺。新型的病菌病毒會向人類襲來，不可低估。
- 5.現代科學技術發展迅猛，生物工程，基因工程，細胞，酶，蛋白質，航天醫學，生物醫學機器人工程，藥物設計和研製，疫苗的研製，藥化學結構的篩選和修飾等等日顯重要，特別對於嚴重威脅人類生命的重大疾病，艾滋病，癌症，心臟病，肺病，傳染性疾病（Sars，冠狀型病毒肺炎等），疑難病症等等更具有極其重大意義。
- 6.冠狀型病毒肺炎的變異和生物標誌物，特效和高效防治技術，療效高的藥物和疫苗，都提出了重大研究課題。

Sars 和冠狀型肺炎的研究防治，呼吸道傳染病的多次出現的原因和人類的預防對策，都需要我們高度關注。否則，人類還會遭遇病魔的侵襲，這些病毒會反復出現反復發作，或以新的變種新的變態出現。

First, the general treatment: to protect diarrhea, keep the airway open, prevent water, electrolytes and acid-base imbalance, if necessary, oxygen therapy. Antiviral drugs: Amantadine 0.1g, 2 times / d for 3 to 5 days; ribavirin, 10mg / kg, 2 or 3 times / d, orally or by injection; Banlangen, Astragalus, Honeysuckle, Daqingye, Forsythia, etc. have certain antiviral effects. Also available are alpha-interferon, thymosin, and the like. Third, the corresponding antibiotics should be given for secondary bacterial infections. Alpha-interferon inhalation (5 million U each time for adults, add 2ml of sterile water for injection twice daily);

Lopinavir / ritonavir 2 capsules each time, twice a day.

Antiviral drugs are a class of drugs used to specifically treat viral infections. (Viricide) is different, the former is used to suppress the virus in the body, while the latter is used to destroy the virus in vitro.

The mechanism of antiviral drugs is to protect against further infections of the virus by affecting certain links that interfere with the viral replication cycle. For example, directly inhibit or kill the virus, interfere with the adsorption of the virus, prevent the virus from penetrating into the cell, inhibit the virus biosynthesis, inhibit the virus release, or enhance the host's anti-virus capabilities, etc.

Most antiviral drugs are currently used against HIV, herpes virus, hepatitis B and C viruses, and influenza A and B viruses.

Antiviral drugs are divided into the following categories:

1. Penetration and Hulling Inhibitors: Amantadine, Amantadine, Enveviridi, Maravero
2. DNA polymerase inhibitors: acyclovir, ganciclovir, valacyclovir, famciclovir, sodium phosphonate
3. Reverse transcriptase inhibitor:
 1. Nucleosides: lamivudine, zidovudine, emtricitabine, tenofovir, adefovir dipivoxil
 2. Non-nucleosides: efavirenz, nevirapine
4. Protein inhibitor: saquinavir
5. Neuraminidase inhibitors: oseltamivir, zanamivir
6. Broad-spectrum antiviral drugs: ribavirin, interferon

These drugs have considerable curative effect or significant effect, which is worthy of recognition. New drug design and chemical structure modification, combined with biomedical engineering technology and genetic engineering, etc., new drugs will be developed gradually. Especially for the development of Sars, Coronavirus pneumonia and other drugs. Of course, botanicals or compound preparations will be developed gradually.

A. Traditional medicine

B. Chemical drugs Antiviral drugs, immunizing agents, antibacterial drugs, genetic drugs

(combined drugs) for critically ill patients, etc.

C. Botanical drugs

D. Compound drugs

E. Immunizations, vaccines

F. Other physical therapy

G. Gene therapy

H. Medical sterilization detoxification chamber for respiratory infectious diseases

Physical instrument therapy Respiratory therapy

I. surgery

J. Lung physical medical device

K. Some veterinary medicines (pneumonia drugs such as cattle, sheep, pigs, dogs, cats, etc., selective reduction and adaptation, strict selection without harm to the human body and toxic and side effects) These drugs can also refer to, including clinical research, new drug development .

L. Other.

M. Taking the above technologies and medical drugs will have a certain effect. For the firefighting of coronavirus, it will play a very important role in bacterial viral pneumonia (Sars, respiratory belt infectious diseases such as coronavirus pneumonia). At this stage, efficiency is obvious. Although it is a difficult disease, it is not an incurable disease, and the efficiency and cure rate will be the best. This is important for the suppression of large-scale spread of pneumonic disease and for medical treatment of patients with the disease.

Currently known influenza viruses are types A, B, and C, and the prevalence is mainly A and B. Amantadine and rimantadine only have inhibitory effects on influenza A virus and have similar efficacy. Early medication for mild influenza A can reduce fever and shorten the course of the disease. This type of drug is a convenient oral drug, but it is prone to drug resistance and can also cause adverse reactions such as dizziness and insomnia. Ribavirin is a broad-spectrum antiviral drug that inhibits a variety of DNA and RNA viruses in vivo and in vitro. It is suitable for respiratory fusion bronchitis, herpes zoster and pediatric adenoviral pneumonia, and is also used to treat epidemic bleeding. The drug of choice for fever. Chinese scholars have also achieved good results with their sprays and nasal drops for upper respiratory tract viral infections and intravenous injections for pediatric adenovirus infections. Its aerosol and aerosol administration is used abroad to treat influenza and respiratory syncytial virus pneumonia, and the effect is exact. Influenza virus neuraminidase can promote the release of newly formed influenza virus from infected cells and spread from the respiratory mucosa to surrounding tissues. Neuraminidase inhibitor zanamivir is a new type of antiviral drug that can effectively inhibit influenza A and B viruses. It has the same therapeutic effect on many neuraminidase-dependent viral epidemics and has options It has the advantages of high sex, low toxicity, strong activity, small dosage, wide range of action, and good prevention effect. Zanamivir has very low oral bioavailability and can only be administered orally or nasally. Osmimivir (Damifi), another potent inhibitor of neuraminidase, is a precursor of the active drug GS-4071, and has 3 to 6 times the inhibitory activity against neuraminidase of influenza virus than zanamivir. Delicious medicine. Primivir is a new type of anti-influenza neuraminidase inhibitor. Its activity is similar or stronger than that of zanamivir and osimivir. In vitro studies have shown that it has a very high selectivity for influenza virus. Good absorption, longer plasma half-life, can be used once a day.

Abidol tablets Lopinavir / Ritonavir tablets (Lopinavir / ritonavir, LPV / r, trade name: Cleeve

In the absence of the development of a new special drug, the use of the above-mentioned drugs and technical means is the best choice, and its effectiveness and high efficiency are

worth affirming. It also takes time and process to be able to clinically treat drugs and vaccines. As long as we work hard, medical scientists and pharmacists must make breakthroughs and make significant progress in the time we can see.

Pneumonia diseases, including severe viral bacterial influenza pneumonia, are a major scourge of human survival, especially Sars viral pneumonia (coronary virus pneumonia, etc.) is extremely harmful to humans, and must not be underestimated. A large-scale plague will occur, with the majority of deaths, with extremely dire consequences. To this end, strict precautions must be taken and the right medicine can be prescribed. Infectious diseases such as influenza, pneumonia, and hepatitis are high in the winter and spring seasons, and it is especially critical for vulnerable groups to resist. It is crucial to strengthen protection for specific and ordinary people to prevent the spread of large-scale infections. It is also critical to contain and prevent pathogens and sources of disease transmission. Coronavirus pneumonia is quite comparable to the pathogenesis and harm of various pneumonia in animals and livestock. Cattle, sheep, pigs, dogs, cats, birds, etc. also have certain transmission of viral infections, and must not be taken lightly.

(Network Diagram) Chemical Structure Diagram-Medicinal Chemical Structure Modification
Quoted from Related Websites

BetaCoV / Wuhan / IVDC-HB-01 / 2019, BetaCoV / Wuhan IVDC-HB-04 / 2020, BetaCoV / Wuhan / IVDC-HB-05 / 2019, BetaCoV / Wuhan / WIV04 / 2019 and BetaCoV / Wuhan / IPBCAMS-WH -01/2019 [6] [14] [15]. Its RNA sequence is approximately 30,000 nucleotides in length (source Wikipedia)

Severe Acute Respiratory Syndrome (SARS) SARS Incident (2003) Middle East Respiratory Syndrome Coronavirus

(MERS) Middle East Respiratory Syndrome (2012) Variant A H1N1 Influenza (H1N1) 2009 H1N1 Influenza (2009) Ebola Virus Ebola Virus Outbreak in 2005 (2005)

-----Les voies de
transmission des coronavirus montrent que les animaux

Infections par voie respiratoire ou par la bouche et la conjonctive. Le virus est exhalé par

Ou de la toux, des aérosols, des sécrétions trachéales et des excréments, mais
Suspendu dans l'air ou répandu dans des outils de pollution, des enclos, de la nourriture, etc.

Il est nécessaire, par conséquent, dans la détection des anti-prototypes, l'immunisation avec la technologie des enzymes peroxydases est souvent utilisée.

Techniques, Techniques de microscopie électronique d'immunisation, Techniques de détection d'acide nucléique viral

Les coronavirus comprennent principalement les inhalateurs respiratoires humains et les coronavirus

(VHC), virus coronarien intestinal humain (HECV), virus de la bronchite infectieuse du poulet (IBV), virus de la gastro-entérite infectieuse du porc (TGEV), grippe porcine
Virus de la diarrhée pédiatrique (VDEP), virus de la myélite cérébrospinale hémagglutinante porcine

(HEV), Virus de l'hépatite de la souris (MHV), Flaming Chicken Blue Crown Disease Virus (TCDV), Coronavirus de la diarrhée du veau nouveau-né (NCDCV), Estomac poulain
Virus de l'entérite coronaire (FGEV), Virus coronaire canin (CCV), Transmission du chat
Virus de la péritonite sexuelle (FIPV), virus coronaire du rat (RCV, voies respiratoires
Et pneumonie), virus de l'inflammation des glandes salivaires du rat (SDAV) virus de la maladie coronarienne du vison (ECV), virus de la maladie coronarienne du lapin

Autres animaux (y compris divers animaux de la colonne vertébrale aquatique
Et les animaux vertébrés terrestres) ont également découvert successivement des maladies causées par des virus coronaires,

Comprenant principalement le virus de Berne, le virus Brida
(Bredavirus) et les rhumatismes humains.

Propriétés essentielles de la maladie coronarienne

Coronavirus pour coronavirus de poulet, porc, chien, chat, humain et souris

L'observation d'échantillons colorés négativement a montré que le coronavirus était polymorphe.

Virus coronaire sur l'alcool, l'éther, le chloroforme, les sels biliaires et autres solvants lipidiques

Sensible; très sensible à la température, donc l'épidémie provoquée par celle-ci est plus fréquente

En hiver et au début du printemps. Sensibilité à l'acide, divers coronavirus ne

Ils sont tous identiques et généralement sensibles à pH3 ou inférieur.

Prolifération sur cellules péritonéales et cellules CRFK de chatons primaires; TGEV et

Le VHE peut s'adapter aux cellules rénales primaires de porc, aux cellules de la rate, aux cellules thyroïdiennes et aux testicules

Cellules pilules, etc.; le PEDV peut s'adapter aux cellules intestinales du porc fœtal; le NCDCV peut s'adapter

Cellules rénales de singe de la rivière Yingheng, cellules rénales bovines fœtales; le MHV peut s'adapter aux souris

Macrophages, cellules DBT de souris, cellules 17CL-1 de souris; le VHC convient à la succession de cellules rénales embryonnaires humaines, de cellules wI-38,

Macrophages, cellules DBT de souris, cellules 17CL-1 de souris; le VHC est applicable aux cellules rénales embryonnaires humaines, aux cellules w-38, aux cellules Hela et ainsi de suite.

Il existe de nombreux types de coronavirus chez l'homme.

Ils appartiennent respectivement aux classes I et II. Une maladie coronarienne a été trouvée

Nouvelles espèces vénéneuses telles que le coronavirus de vison, le coronavirus de lapin, etc.

Amantadine antivirale associée à l'isathiazone

Les matériaux peuvent inhiber la prolifération du TGEV dans la culture cellulaire; maladie coronarienne humaine

Ubenimex (inhibiteur commercial de la souche 229E et du TGEV)

(Le nom du produit est Bestox ou Ubenimex)) et

Oseltamivir

Les médicaments tels que le benzonatate ont également une valeur de référence.

Coronavirus canin coronavirus félin virus de la pneumonie porcine virus de la pneumonie

ovine virus de la pneumonie bovine virus de la pneumonie équine oxytétracycline,

telmioxine, flufénicol ou tylosine pneumonie virale bovine Le virus de la pneumonie

rhinocéros équine (EHV1) peut être divisé en deux sous-types, à savoir le sous-type 1 est

également appelé sous-type fœtal, ce qui provoque principalement l'avortement; le sous-type

2 est également appelé type du système respiratoire, ce qui provoque principalement des

symptômes respiratoires. L'EHV1 peut proliférer sur les fibroblastes d'embryons de poulet

et les cellules primaires de chevaux, de bovins, de moutons, de porcs, de chiens, de chats,

de hamsters, de lapins et de singes. De plus, l'EHV1 ne peut pas être utilisé chez les

fœtus de bovins, ovins et lapins. Prolifération intracellulaire

Le nom complet de SV40 est Simian vacuolating virus 40 (Simian viruslating virus 40) ou

Simian virus 40 (Simian virus 40), qui est un virus polyome et un virus à ADN.

(Virus Simian 40), un virus du polyome et un virus à ADN

Le syndrome respiratoire du Moyen-Orient Le coronavirus est l'agent pathogène qui cause le syndrome respiratoire du Moyen-Orient (abréviation anglaise: MERS-CoV ou nom de code: EMC / 2012' HCoV-EMC / 2012 »

Le poumon est un organe important dans le système respiratoire de nombreux animaux qui respirent de l'air. Les mammifères et les autres animaux aux structures plus complexes ont deux poumons, qui sont situés dans la cavité thoracique près de la colonne vertébrale et sur les côtés gauche et droit du cœur.

La Journée mondiale de la pneumonie a été lancée le 2 novembre 2009 par la Coalition mondiale contre la pneumonie infantile, une coalition de près d'une centaine d'organisations et d'institutions à travers le monde. Et il est déterminé que le 12 novembre de chaque année est la Journée mondiale de la pneumonie pour exhorter le gouvernement à renforcer la prévention et le traitement de la pneumonie. L'Organisation mondiale de la santé et l'UNICEF ont publié le Plan d'action mondial pour la prévention et le contrôle de la pneumonie (GAPP), une maladie qui n'est pas inconnue de la plupart des gens Le tueur numéro un mondial d'enfants de moins de 5 ans tue environ 2 millions d'enfants de moins de 5 ans chaque année, et en moyenne un enfant meurt d'une pneumonie toutes les 15 secondes (la tuberculose pulmonaire, le cancer du poumon, etc. sont également des tueurs de patients atteints de maladies pulmonaires) Le nombre de personnes d'âge moyen et de personnes âgées qui meurent d'une maladie pulmonaire représente également des millions de comptes chaque année.

References Citing data charts, etc .: Internet resources, Wikipedia, Chinese encyclopedia and related websites.